12-1996

The 1996 Iowa Corn Yield Test Report, District 5

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Abstract

Results of the Iowa Com Yield Test are published to aid Iowa farmers in selecting com hybrids. This i. the seventy-seventh consecutive year for the test. These data are first released on Iowa State University Extension's electronic information delivery system (EXNET) and the Internet usually around the end of November. Anyone can access this information and receive the data as soon as they are released. This information can be accessed in three ways: by modem at (515) 294-8354 and logging in as "guest," through Internet using World Wide Web (WWW) at the URL: http://www.exnet.iastate.edu, or through Internet using Telnet to exnet.iastate.edu and logging in as "guest." For additional information, contact EXNET, I IO EES Bldg.,Haber Rd., Iowa State University, Ames, Iowa 50011-3070. telephone number (515) 294-8658.

Disciplines

Agriculture

AGRONOMY
- Crops
- Soils
- Climate

A supplement to the December 14, 1996 issue of *Iowa Farmer Today*

The 1996 Corn Yield Test Report District 5

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The next released format of the data is on computer diskettes, which include a hybrid selection computer program described in another section of this report. These diskettes are usually available a week to 10 days after the data are released on EXNET and the Internet.

The final format is the printed version, which is being printed and distributed by *Iowa Farmer Today* in its Dec. 14, 1996 issue. A few days later, the reports also are available from county extension offices.

The presentation of data for the hybrids tested does not imply approval or endorsement by the authors or the agencies sponsoring or conducting the test. Entries in Tables 1 and 2 are designated by brand name and variety.

Use of the Data in Advertisements

Iowa State University and the Iowa Crop Improvement Association desire to maintain the credibility of data from the Iowa Corn Yield Test. Misuse of these data in advertisements can have a negative effect on the perception of the value of these data. For advertising purposes, brand to brand comparisons should not be made unless more than one competitor brand is used in the ad and all entries of those brands in a given table are included in the ad. Advertisement statements by an individual company about the performance of its entries can be made as long as they are accurate statements about the data as published with no reference to other companies' hybrids. A statement similar to: "See the official Iowa State University Extension Corn Yield Test Report, Pm-660-(1-7)-96, for details," should be included in the ad.

1996 Procedure

Producers of seed corn and Iowa State University were eligible to enter varieties in the Iowa Corn Yield Test. Each producer was allowed a maximum of six paid entries per district. All entries had to be available in a quantity of at least 10 bushels of seed.

In 1996, 225 entries were evaluated in this district. Ten of the entries determined to be check hybrids were entered by Iowa State University. In June, survey cards are mailed to a random sample of corn growers in Iowa. Based on the survey results, the 10 hybrids grown on the most acres in a district are classified as check hybrids for that district. The check hybrids (*) in this report were determined by the 1995 survey. Iowa State University entered a maximum of two check hybrids of any given brand. These entries were given priority over the remaining 215 entries made by seed producers.

Each entry was replicated four times in four-row plots at a planting rate of 29,000 kernels per acre at each location. All locations were machine-planted. The center two rows of each plot were harvested with a corn combine. No gleanings or dropped ears were included in yield data. A moisture determination was made from each plot and yields were corrected to 15.0 percent moisture for shelled corn.

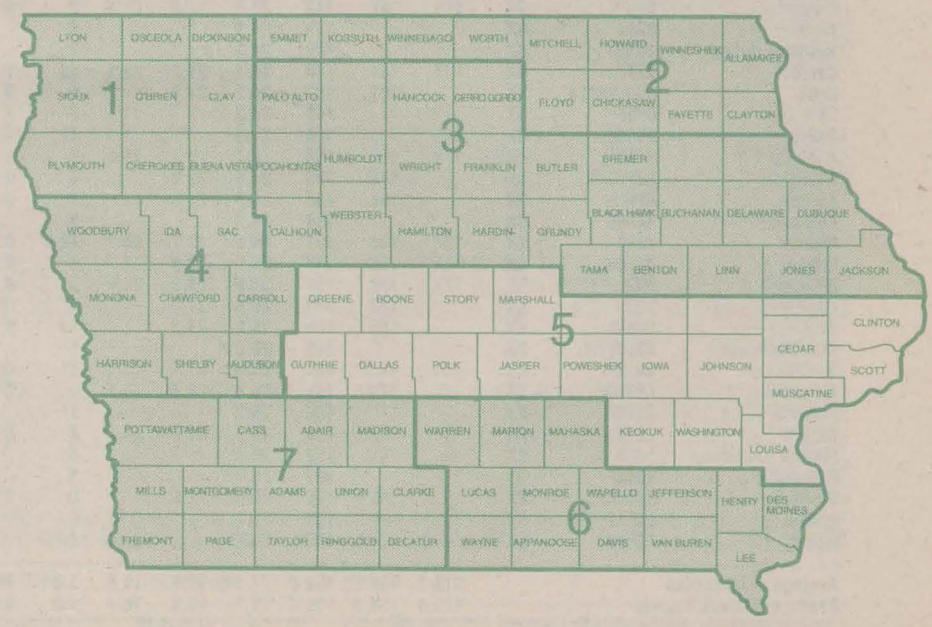
Since 1988, data for protein, oil, and starch percentages have been included in the Iowa Corn Yield Test Reports. Protein, oil, and starch were measured on an Infratec 1225 near-infrared transmittance analyzer calibrated against accepted chemical methods as done by Woodson-Tenant Labs, Des Moines, Iowa. Dr. Charles R. Hurburgh, Jr. of the ISU Department of Agricultural and Biosystems Engineering was responsible for analyzing the samples. Samples for nutrient analysis were collected from one field in each district. Data presented are averages of the four replicated plots in that field. To be consistent with the yield data, the protein, oil, and starch data were corrected to 15.0 percent moisture.

How Information Is Presented

The agronomic data presented are averages of three locations in 1994, 1995, and 1996. Yield in bushels per acre and percentages of moisture, root lodging, stalk lodging, dropped ears, stand, protein, oil, and starch are shown for all entries in 1996 and for those tested in 1994 and 1995 that were in the 1996 test.

Interpretation of Results

Yield differences due to variation in soil, fertility, moisture availability, insect infestation, and diseases, plus any variation due to planting and harvesting techniques, are identified through statistical analysis. The LSD values for yield shown in Tables 1 and 2 represent, in bushels per acre, the amount of yield variation that could be due to variations in the factors just mentioned. In comparing varieties, yield differences greater than the LSD value can be attributed to genetic differences in the yield potential of these varieties; yield differences less than the LSD value are not statistically different and could have been due to other factors.



Iowa Crop Improvement Association

IOWA STATE UNIVERSITY
University Extension

Ames, Iowa

Table 2. Averages of 1995-96 and 1994-96 of Varieties Tested in District 5.
LSD for Yields Are 5 Bushels for 94-96 and 6 Bushels for 95-96.

94-96 Protein LSD = 0.2. 94-96 Oil LSD = 0.1. 94-96 Starch LSD = 0.3.
95-96 Protein LSD = 0.3. 95-96 Oil LSD = 0.1. 95-96 Starch LSD = 0.4.

			Yield Bu/A		Moisture Pct		Root Ldg Pct		Stalk Ldg Pct		Drop Ear Pct		Stand Pct		Protein Pct		Oil Pct		Starch Pct			
Brand	Variety	Cross	94-96	95-96	95-96	94-96	94-96	95-96	94-96	95-96	94-96	95-96	94-96	95-96	94-96	95-96	94-96	95-96	94-96	95-96	Variety	Brand
Cargill	5677	SX	174	162	16.7	17.6	2	2	5	6	0	0	94	94	7.5	7.1	3.1	3.1	61.2	61.5	5677	Cargill
DeKalb	DK566	SX	164	158	17.3	17.3	1	1	2	2	0	0	93	91	7.6	7.3	3.4	3.4	60.7	60.9	DK566	DeKalb
*DeKalb	DK580	SX	169	163	17.8	17.7	0	0	3	3	0	0	91	89	7.3	6.9	3.4	3.3	61.1	61.4	DK580	*DeKalb
Mycogen	2595	SX	152	149	17.9	17.8	2	0	4	3	0	0	92	90	6.9	6.5	3.3	3.3	61.3	61.3	2595	Mycogen
Golden Harvest	H2502	SX		150	18.2			0		1		0		90		7.1		3.2		61.3	H2502	Golden Harvest
Mycogen	2674	SX	158	152	18.2	18.3	1	1	3	3	0	1	91	89	7.9	7.5	3.4	3.5	61.0	61.0	2674	Mycogen
Middlekoop	M810	SX		157	18.4			5		4		0		90		7.2		2.9		61.7	M810	Middlekoop
DeKalb	DK604	SX	162	156	18.4	18.1	1	0	3	2	1	1	92	90	7.5	7.1	3.3	3.4	61.0	61.1	DK604	DeKalb
Northrup King	N6223	SX		153	18.6			1		2		0		83		7.7		3.3		60.9	N6223	Northrup King
*Pioneer	3394	SX	161	156	18.7	18.9	1	0	3	3	1	1	92	91	7.5	7.2	3.2	3.2	61.4	61.5	3394	*Pioneer
Mycogen	2677	SX		154	18.8			0		3		0		88		7.5		3.4		61.0	2677	Mycogen
Bioseed	9530	SX		160	19.0			0		2		1		91		6.8		3.1		61.3	9530	Bioseed
*DeKalb	DK591	SX	167	157	19.1	19.3	2	1	3	3	0	0	90	87	7.6	7.2	3.5	3.4	60.5	60.6	DK591	*DeKalb
*Cargill	6303	SX	161	152	19.1	19.0	1	1	2	2	1	1	92	89	7.7	7.4	3.3	3.2	60.9	61.0	6303	*Cargill
Middlekoop	M711	SX	160	155	19.1	19.1	0	0	2	2	0	0	88	86	7.2	6.8	3.2	3.2	61.4	61.4	M711	Middlekoop
Wyffels	W552	SX	155	153	19.1	19.2	0	1	2	1	0	0	90	88	7.1	6.8	3.2	3.1	61.6	61.8	W552	Wyffels
SOI	9115	SX		152	19.2			0		3		0		79		6.9		3.2		61.4	9115	SOI
Ottilie	2453	SX	160	157	19.3	19.3	1	0	3	4	0	0	89	86	7.3	6.9	3.2	3.2	61.4	61.6	2453	Ottilie
ICI/Garst	8541	SX	162	157	19.3	19.0	1	1	3	3	0	1	89	85	7.4	7.1	3.5	3.5	60.8	60.6	8541	ICI/Garst
Agripro	HS9484	SX		155	19.4			0		3		1		88		7.1		3.5		61.1	HS9484	Agripro
Croplan Genetics	599	SX	162	155	19.4	19.3	1	0	2	3	0	0	90	87	7.0	6.6	3.2	3.3	61.5	61.6	599	Croplan Genetics
Croplan Genetics	581	SX		150	19.4			1		4		0		80		7.1		3.3		61.1	581	Croplan Genetics
Wyffels	W549	SX		152	19.4			0		4		1		88		6.9		3.2		61.3	W549	Wyffels
*Golden Harvest	H2530	SX	166	160	19.4	19.3	3	2	3	2	0	0	91	90	7.1	6.8	3.4	3.3	61.2	61.3	H2530	*Golden Harvest
Golden Harvest	H2497	SX		156	19.4			2		3		0		89		7.4		3.3		61.6	H2497	Golden Harvest
*Asgrow	RX623	SX	152	147	19.6	19.1	1	1	3	3	0	0	92	89	7.3	6.9	3.3	3.3	60.8	61.0	RX623	*Asgrow
*Pioneer	3489	SX	163	158	19.7	19.4	1	2	2	2	0	0	86	83	7.2	6.7	3.5	3.5	61.0	61.1	3489	*Pioneer
Wyffels	W677	SX		156	19.7			2		3		0		83		7.3		3.3		60.7	W677	Wyffels
Bioseed	9498	SX	163	160	19.8	19.3	0	0	3	3	0	0	91	91	7.1	6.9	3.4	3.3	61.1	61.2	9498	Bioseed
Sieben	7685	SX		169	19.9			1		3		0		88		6.9		3.3		61.1	7685	Sieben
Pfister	2650	SX	174	169	19.9	19.7	3	1	2	2	1	0	93	91	7.3	6.9	3.3	3.2	60.8	61.0	2650	Pfister
*Crows	445	SX	165	161	19.9	19.5	1	1	3	2	1	1	94	91	7.1	6.9	3.4	3.4	61.1	61.2	445	*Crows
Ames Best	AB1101	SX		166	20.0			1		2		0		89		6.9		3.1		61.2	AB1101	Ames Best
Merschman	M5112	MSX		150	20.0			0		4		1		83		7.4		3.0		61.3	M5112	Merschman
Terra	TR1091	SX	158	150	20.1	20.1	2	1	3	3	1	1	90	89	7.6	7.3	3.5	3.4	60.6	60.7	TR1091	Terra
Cornelius	C615	SX	169	170	20.1	19.7	1	0	2	3	0	0	90	89	7.2	6.8	3.3	3.2	60.7	60.8	C615	Cornelius
Hill Seed	HSX1105	SX		165	20.2			1		3		0		89		6.7		3.2		61.1	HSX1105	Hill Seed
Terra	TR1087	SX		160	20.2			1		2		0		90		6.7		3.3		61.1	TR1087	Terra
Callahan	C7658	SX		164	20.2			2		2		0		85		6.7		3.2		61.4	C7658	Callahan
Payco	834	SX	163	160	20.2	19.8	2	2	3	3	0	0	87	85	7.2	6.8	3.2	3.1	60.7	60.9	834	Payco
Middlekoop	M813	SX		165	20.3			2		2		0		89		7.0		3.3		60.6	M813	Middlekoop
LG Seeds	LG-2583	SX	171	168	20.4	19.8	1	0	2	2	0	0	91	91	7.3	6.9	3.3	3.3	60.8	60.9	LG-2583	LG Seeds
Renze	6345	SX	165	165	20.4	19.9	1	1	5	5	0	1	91	91	7.3	6.9	3.2	3.1	61.0	61.1	6345	Renze
Crows	494	SX	162	158	20.4	20.5	2	1	3	3	0	0	91	89	7.9	7.5	3.1	3.3	61.1	61.2	494	Crows
Kline	KSX350	SX	168	163	20.5	20.0	2	2	2	3	0	0	88	86	7.2	6.8	3.2	3.1	60.8	61.0	KSX350	Kline
Pioneer	3335	SX		161	20.5			0		7		0		92		7.2		3.1		61.4	3335	Pioneer
Epley	EX3608	SX	166	167	20.6	20.1	3	3	2	2	0	0	92	91	7.2	6.7	3.2	3.2	60.9	61.1	EX3608	Epley
Kruger	9513	SX	170	166	20.6	20.1	2	1	3	4	0	0	90	91	7.1	6.4	3.1	3.0	61.2	61.4	9513	Kruger
Rainbow	3109	SX	161	154	20.7	20.6	1	1	2	2	0	0	89	88	7.6	7.3	3.4	3.4	61.1	61.2	3109	Rainbow
Merschman	M5113	SX		162	20.7			2		3		0		88		6.7		3.2		60.9	M5113	Merschman
Callahan	C7557	SX		161	20.8			2		3		1		88		7.1		3.3		60.9	C7557	Callahan
Golden Harvest	H2539	SX	159	154	20.8	20.5	0	0	2	2	0	0	86	86	7.5	7.2	3.3	3.4	61.2	61.3	H2539	Golden Harvest
Great Lakes	5962	SX		152	21.0			0		4		0		86		7.6		3.1		61.6	5962	Great Lakes
Mellow Dent/Coop	7727	SX		171	21.0			2		3		0		84		6.8		3.2		61.4	7727	Mellow Dent/Coop
Farmers Coop	FC1510	SX		154	21.0			0		2		0		89		7.1		3.2		61.8	FC1510	Farmers Coop
Mycogen	2725	SX		165	21.0			2		4		0		85		7.0		3.2		61.2	2725	Mycogen
DeKalb	DK626	SX		165	21.0			2		3		0		89		7.2		3.5		60.5	DK626	DeKalb
Renze	6386	SX		172	21.2			2		3		0		91		6.7		3.2		61.4	6386	Renze
Dairyland	ST1412	SX		165	21.2			3		3		0		89		7.0		3.3		61.3	ST1412	Dairyland
Cargill	7557	SX	168	158	21.2	21.3	7	8	5	5	0	0	90	86	7.4	7.0	3.3	3.2	61.4	61.5	7557	Cargill
SOI	9126	SX		165	21.3			1		3		0		87		7.1		3.3		61.2	9126	SOI
Epley	EX3484	SX		159	21.3			0		2		0		89		6.8		3.3		61.8	EX3484	Epley
Ottilie	2467	SX		165	21.3			1		3		1		88		6.9		3.3		61.4	2467	Ottilie
Cargill	6997	SX		152	21.3			1		3		1		90		6.9		3.2		61.4	6997	Cargill
Merschman	M5110	SX		162	21.3			1		4		0		85		6.9		3.2		61.5	M5110	Merschman
Northrup King	N7070	SX		164	21.4			3		2		0		90		7.0		3.1		61.6	N7070	Northrup King
Fontanelle	5335	SX		169	21.4			2		2		0		90		6.7		3.3		60.9	5335	Fontanelle
Kruger	9614	SX		165	21.5			3		2		0		91		7.0		3.3		60.7	9614	Kruger
Crows	510	SX	161	153	21.5	21.7	1	1	2	2	0	1	92	90	7.6	7.4	3.4	3.4	60.9	60.8	510	Crows
Golden Harvest	H2547	SX		170	21.5			1		3		0		90		6.9		3.3		61.1	H2547	Golden Harvest
Croplan Genetics	661	SX		167	21.5			1		3		0		87		6.7		3.3		61.4	661	Croplan Genetics
Desoy	9614A	SX		165	21.6			1		2		0		89		6.8		3.2		61.0	9614A	Desoy
Crows	496	SX		162	21.7			3		2		0		92		7.2		3.4		60.8	496	Crows
Kline	KSX60A	SX	167	153	21.8	22.4	7	6	3	4	1	1	89	87	7.9	7.6	3.3	3.3	61.0	61.0	KSX60A	Kline
Mark	MRK95117	SX	166	154	21.8	22.4	7	5	2	3	1	1	91	88	7.6	7.2	3.2	3.2	61.0	61.2	MRK95117	Mark
NC+	4919	SX		165	22.1			1		2		0		89		7.0		3.3		61.2	4919	NC+
Cornelius	C642	SX	169	165	22.1	21.8	0	1	2	1	0	0	89	90	7.0	6.6	3.3	3.3	61.7	62.0	C642	Cornelius
Pfister	3034	SX		160	22.2			0		3		0		88		6.5		3.4		61.9	3034	Pfister
Moews	3892	SX	167	153	22.3	22.9	8	6	2	3	1	1	93	90	7.7	7.4	3.2	3.2	61.1	61.1	3892	Moews
Uthoff	U66	SX	164	159	22.3	21.7	2	0	3	3	0	0	88	88	6.8	6.4	3.4	3.4	61.6	61.9	U66	Uthoff
Kruger	9415A	SX	167	162	22.3	22.1	0	0	2	2	0	1	88	88	7.1	6.7	3.4	3.4	61.4	61.6	9415A	Kruger
Great Lakes	591	SX		166	22.4			1		2		1		88		7.1		3.2		61.5	591	Great Lakes
Great Lakes	6317	SX		161	22.5			2		1		0		85		7.1		3.3		60.9	6317	Great Lakes
ICI/Garst	8400	SX	161	155	22.6	22.1	2	2	3	2	1	1	89	88	7.5	7.3	3.4	3.4	60.9	60.9	8400	ICI/Garst
Ottilie	2466	SX	168	163	22.6	22.4	1	0	3	3	0	0	91	88	7.0	6.6	3.3	3.4	61.4	61.5	2466	Ottilie
Mycogen	7250	SX		166	22.7			1		2		0		88		7.3		3.5		60.8	7250	Mycogen
Cargill	7777	SX	175	164	22.7	22.8	13	8	4	4	0	0	90	88	7.6	7.3	3.3	3.3	61.0	61.0	7777	Cargill
Bioseed	9550	SX	162	155	22.9	22.6	3	2	4	4	1	1	90	87	7.6	7.3	3.3	3.2	60.9	60.9	9550	Bioseed
Fontanelle	5325	SX		157	22.9			1		3		0		88		6.6		3.4		61.8	5325	Fontanelle
Desoy	9315BPT	SX		151	22.9			2		4		0		90		7.9		3.8		60.4	9315BPT	Desoy
Payco	902	SX		148	23.0			1		6		0		90		7.1		3.2		61.0	902	Payco
Agripro	AP619	SX		163	23.0			1		1		0		88		7.1		3.2		61.0	AP619	Agripro
Mark	MRK96114	SX		167	23.1			3		3		0		88		6.8		3.3		61.1	MRK96114	Mark
NC+	5445	SX		157	23.1			2		1		0		90		7.2		3.3		60.6	5445	NC+
Kruger	9616B	SX		174	23.2			2		3		0		91		6.7		3.2		61.4	9616B	Kruger
Renze	6416	SX		171	23.4			3		2		1		92		6.7		3.3		61.2	6416	Renze
Cargill	7997	SX	172	161	23.6	23.8	3	1	3	3	0	0	92	89	7.1	6.8	3.4	3.4	61.4	61.5	7997	Cargill
Ames Best	AB1162	SX		165	23.8			2		2		1		90		6.9		3.2		61.3	AB1162	Ames Best
Ottilie	2482X	SX		162	24.2			0		1		0		90		7.8		3.3		60.5	2482X	Ottilie
Average of All Entries			164.3	159.9	20.7	20.2	2.1	1.4	2.8	2.8	0.4	0.4	90.3	88.3	7.4	7.0	3.3	3.3	61.1	61.2	Average of All Entries	
Average of Check Hybrids			163.1	156.7	19.2	19.0	1.3	0.9	2.8	2.6	0.3	0.4	90.9	88.6	7.4	7.0	3.4	3.3	61.0	61.1	Average of Check Hybrids	

* = Check Hybrid Entered by Iowa State University. SX = Single Cross. MSX = Modified Single Cross. 3X = 3-Way Cross. 4X = 4-Way Cross. SXB = Blend of Single Crosses.

Table 1. Average Performance of Varieties Tested in District 5. 29,000 Planting Rate. LSD for 1996 Yield in Bushels Is 10, for 1995 Is 8, and for 1994 Is 10. 1996 Protein Pct LSD = 0.4. 1996 Oil Pct LSD = 0.2. 1996 Starch Pct LSD = 0.8.

			Yield Bu/A			Moisture Pct			Root Ldg Pct			Stalk Ldg Pct			Drop Ear Pct			Stand Pct			Protein Pct			Oil Pct			Starch Pct				
Brand	Variety	Cross	1994	1995	1996	1996	1995	1994	1996	1995	1994	1996	1995	1994	1996	1995	1994	1996	1995	1994	1996	1995	1994	1996	1995	1994	1996	1995	1994	Variety	Brand
Federal	FX37G	SX			138	16.6			0			8			1			88			7.7			2.9			61.5			FX37G	Federal
Pioneer	3568	SX			165	17.8			1			4			0			92			6.7			3.2			62.6			3568	Pioneer
Cargill	5677	SX	197	156	169	17.9	15.5	19.5	4	0	2	6	5	3	0	0	0	95	93	94	7.3	6.8	8.4	2.9	3.2	3.3	61.6	61.4	60.6	5677	Cargill
DeKalb	DK566	SX	176	159	157	18.1	16.6	17.1	1	0	1	2	1	3	0	0	1	92	91	95	7.3	7.3	8.3	3.3	3.5	3.4	61.0	60.7	60.5	DK566	DeKalb
Middlekoop	M908	SX			158	18.4			0			2			1			84			6.8			3.0			61.9			M908	Middlekoop
Mycogen	2595	SX	156	154	144	18.6	17.3	17.4	1	0	4	5	2	4	1	0	0	89	91	96	6.6	6.5	7.7	3.0	3.5	3.4	61.9	60.8	61.2	2595	Mycogen
*DeKalb	DK580	SX	182	164	161	18.7	17.0	17.4	0	0	1	4	2	5	0	0	0	87	92	94	7.1	6.8	7.9	3.2	3.3	3.6	61.3	61.4	60.6	DK580	*DeKalb
DeKalb	DK559	SX			158	18.8			0			4			1			90			7.4			3.4			60.2			DK559	DeKalb
Middlekoop	M810	SX		154	160	18.8	18.0		10	1		5	3		0	0		93	87		6.8	7.6		2.7	3.1		62.1	61.4		M810	Middlekoop
Dairyland	DST10803	SX			161	18.9			2			6			1			89			6.8			3.0			61.6			DST10803	Dairyland
Hill Seed	HSX1075	SX			151	18.9			9			4			0			82			7.0			2.9			61.5			HSX1075	Hill Seed
Mycogen	2674	SX	171	149	155	18.9	17.4	18.4	1	0	2	4	3	2	1	0	0	90	88	96	7.5	7.6	8.5	3.4	3.6	3.4	61.3	60.7	60.9	2674	Mycogen
Desoy	9810	SX			160	19.1			2			6			1			88			7.7			3.0			61.1			9810	Desoy
KSC/Challenger	9709	SX			163	19.2			1			4			1			81			6.7			3.0			61.4			9709	KSC/Challenger
DeKalb	DK586	SX			172	19.3			0			3			1			92			7.3			3.4			60.9			DK586	DeKalb
LG Seeds	LG-2539	SX			165	19.3			2			5			0			86			7.1			3.0			60.8			LG-2539	LG Seeds
Merschman	M5107	MSX			139	19.4			1			5			1			81			7.4			3.2			61.3			M5107	Merschman
*Pioneer	3394	SX	172	147	165	19.6	17.8	19.3	0	0	2	4	2	2	1	1	0	93	89	94	7.2	7.2	8.2	3.2	3.1	3.1	61.4	61.5	61.3	3394	*Pioneer
DeKalb	DK604	SX	173	151	162	19.7	17.2	17.4	0	0	2	3	2	3	1	1	0	92	88	96	7.1	7.1	8.3	3.4	3.4	3.3	61.2	61.0	60.8	DK604	DeKalb
SOI	9115	SX		157	146	19.7	18.6		0	0		4	2		0	0		69	89		6.8	6.9		3.1	3.3		61.8	61.0		9115	SOI
ICI/Garst	N3525IT	SX			154	19.7			1			4			1			90			7.1			2.8			61.7			N3525IT	ICI/Garst
Middlekoop	M910	SX			163	19.7			1			1			1			86			6.9			2.9			61.2			M910	Middlekoop
Renze	6287	SX			161	19.8			0			2			0			89			6.5			3.1			61.8			6287	Renze
Wyffels	W549	SX		150	155	19.9	18.9		0	0		5	4		1	0		89	87		6.8	6.9		3.0	3.3		61.4	61.3		W549	Wyffels
Bioseed	9510	SX			165	19.9			0			2			0			90			6.9			3.2			61.4			9510	Bioseed
*Golden Harvest	H2485	SX			153	19.9			0			3			0			90			7.3			3.2			61.4			H2485	*Golden Harvest
Patriot	5101	SX			159	19.9			3			2			0			94			7.5			3.2			61.1			5101	Patriot
Croplan Genetics	599	SX	177	147	163	20.0	18.8	19.2	1	0	1	3	2	1	0	0	0	90	84	95	6.7	6.4	7.7	3.2	3.3	3.2	61.7	61.5	61.3	599	Croplan Genetics
*DeKalb	DK591	SX	186	151	163	20.0	18.2	19.8	2	0	3	4	2	3	0	0	0	85	89	95	7.5	7.0	8.4	3.4	3.5	3.5	60.2	61.1	60.3	DK591	*DeKalb
Golden Harvest	H2502	SX		151	150	20.0	16.4		1	0		1	1		0	0		92	88		7.0	7.2		3.0	3.4		61.7	60.9		H2502	Golden Harvest
Agripro	AP9477	SX			161	20.0			5			4			0			87			7.8			3.4			60.8			AP9477	Agripro
Mycogen	2677	SX		151	157	20.0	17.5		0	0		3	2		0	1		89	87		7.4	7.6		3.3	3.5		61.4	60.7		2677	Mycogen
Northrup King	N6223	SX		163	142	20.1	17.0		1	0		2	1		0	1		77	89		7.6	7.8		3.2	3.5		61.0	60.9		N6223	Northrup King
Middlekoop	M711	SX	170	153	157	20.1	18.1	19.1	0	0	0	3	2	3	0	0	0	86	86	93	6.6	7.0	7.9	3.1	3.3	3.1	61.9	61.0	61.4	M711	Middlekoop
Trelay	8002	SX			159	20.2			0			3			0			89			6.6			3.1			62.0			8002	Trelay
Desoy	9811	SX			164	20.2			3			3			1			90			6.8			3.0			60.8			9811	Desoy
Desoy	9410	SX			160	20.4			0			2			1			90			6.6			3.1			61.9			9410	Desoy
*Asgrow	RX623	SX	162	147	146	20.4	18.8	17.9	2	0	3	2	3	5	0	0	0	89	89	96	7.1	6.8	8.2	3.3	3.4	3.3	61.2	60.8	60.5	RX623	*Asgrow
Bioseed	9530	SX		167	152	20.4	17.6		0	0		2	2		1	1		89	92		6.8	6.8		3.1	3.2		61.4	61.3		9530	Bioseed
Ottilie	2453	SX	166	155	158	20.5	18.0	19.5	1	0	1	4	3	2	1	0	0	89	84	95	6.7	7.1	8.0	3.1	3.2	3.3	61.8	61.3	61.2	2453	Ottilie
Agripro	HS9484	SX		156	155	20.6	18.2		0	0		3	2		2	0		88	88		6.7	7.5		3.4	3.6		61.6	60.5		HS9484	Agripro
Golden Harvest	H2478	SX			155	20.6			0			4			0			92			7.2			3.0			61.3			H2478	Golden Harvest
Pioneer	3411	SX			174	20.6			14			3			0			96			7.4			3.1			61.3			3411	Pioneer
Croplan Genetics	581	SX		142	157	20.6	18.2		1	0		4	3		0	0		85	76		6.7	7.5		3.1	3.5		61.5	60.7		581	Croplan Genetics
ICI/Garst	8541	SX	171	155	160	20.7	17.9	18.5	2	0	1	4	3	3	1	0	0	87	83	97	6.7	7.4	7.9	3.3	3.7	3.4	60.9	60.4	61.0	8541	ICI/Garst
Wyffels	W552	SX	160	147	159	20.7	17.6	19.4	1	0	0	1	2	2	0	0	0	92	84	93	6.5	7.1	7.9	3.1	3.2	3.2	62.3	61.3	61.2	W552	Wyffels
Farmers Coop	FC1606	SX			158	20.8			1			3			0			89			7.4			3.6			61.6			FC1606	Farmers Coop
Golden Harvest	H2497	SX		156	155	20.8	18.1		5	0		3	3		1	0		91	88		7.2	7.6		3.2	3.4		62.0	61.3		H2497	Golden Harvest
M/W Genetics	G7610	SX			160	20.8			2			2			0			91			6.7			3.0			61.8			G7610	M/W Genetics
Merschman	M5112	MSX		147	153	20.8	19.3		0	0		4	4		1	0		80	87		7.4	7.5		2.8	3.3		61.7	61.0		M5112	Merschman
*Pioneer	3489	SX	173	151	165	20.9	18.5	18.8	3	0	0	3	2	1	0	0	0	85	80	94	6.7	6.7	8.3	3.6	3.3	3.6	60.7	61.5	60.8	3489	*Pioneer
Callahan	C7658	SX		161	167	20.9	19.6		3	0		4	1		0	1		84	86		6.9	6.5		3.1	3.2		61.1	61.6		C7658	Callahan
Middlekoop	M914	SX			157	20.9			1			2			1			82			6.9			3.3			62.3			M914	Middlekoop
Wyffels	W717	SX			142	20.9			1			1			1			80			7.5			3.3			61.0			W717	Wyffels
Burrus	634	SX			154	20.9			10			4			1			88			7.6			3.1			60.9			634	Burrus
*Cargill	6303	SX	181	148	155	21.0	17.3	18.8	2	0	2	2	3	2	2	0	0	92	87	97	7.2	7.6	8.2	3.2	3.3	3.3	61.3	60.7	60.8	6303	*Cargill
Bioseed	9498	SX	170	165	155	21.0	18.5	18.3	1	0	0	3	4	2	0	0	0	90	93	89	6.7	7.0	7.7	3.2	3.4	3.5	61.1	61.4	60.9	9498	Bioseed
Terra	TR1087	SX		161	159	21.0	19.3		2	0		2	3		0	0		89	90		6.8	6.6		3.2	3.3		60.9	61.3		TR1087	Terra
Northrup King	N6423	SX			158	21.1			5			1			0			80			6.7			3.1			61.3			N6423	Northrup King
Middlekoop	M813	SX		166	165	21.1	19.5		3	1		3	1		0	1		88	90		6.8	7.1		3.1	3.4		60.5	60.8		M813	Middlekoop
Pfister	2650	SX	184	171	166	21.1	18.7	19.3	3	0	5	2	2	3	0	1	1	92	91	96	6.8	7.0	8.2	3.1	3.3	3.4	60.8	61.1	60.6	2650	Pfister
Callahan	C7654	SX			159	21.1			2			3			0			90			6.7			3.2			61.9			C7654	Callahan
FS	6576	SX			167	21.1			2			2			0			86			6.7			3.2			60.8			6576	FS
Iowa State	110A	SX			161	21.1			2			4			0			82			7.2			3.0			60.5			110A	Iowa State
Kline	KSX350	SX	176	163	163	21.2	19.7	19.2	3	0	2	4	2	2	0	0	0	85	88	92	6.9	6.6	8.2	3.0	3.2	3.4	60.5	61.4	60.4	KSX350	Kline
Wyffels	W677	SX		154	159	21.2	18.3		3	0		4	2		0	0		87	78		7.2	7.4		3.2	3.3		60.6	60.9		W677	Wyffels
Ames Best	AB1101	SX		167	166	21.3	18.8		2	0		2	3		0	1		90	88		6.9	6.9		3.0	3.3		61.4	61.1		AB1101	Ames Best
*Golden Harvest	H2530	SX	179	152	168	21.3	17.6	19.2	4	0	5	2	3	4	0	0	0	92	87	94	6.8	6.8	7.7	3.3	3.3	3.5	61.2	61.4	61.0	H2530	*Golden Harvest
Payco	834	SX	171	158	161	21.3	19.2	19.0	3	0	4	2	3	3	0	0	0	84	86	91	7.0	6.6	8.1	3.0	3.2	3.5	60.5	61.3	60.4	834	Payco
Merschman	M4109	SX			167	21.3			1			4			0			92			6.5			3.3			61.8			M4109	Merschman
M/W Genetics	G7636	SX			163	21.3			1			2			1			82			6.9			3.1			61.0			G7636	M/W Genetics
Sieben	7685	SX		171	167	21.3	18.5		2	0		5	2		1	0		89	87		6.6	7.1		3.3	3.3		61.3	61.0		7685	Sieben
DeKalb	DK618	SX			169	21.3			3			3			1			92			7.1			2.9			61.4			DK618	DeKalb
Cornelius	C610	SX			157	21.3			0			2			1			93			6.8			3.2			62.2			C610	Cornelius
Cornelius	C615	SX	168	165	175	21.3	18.9	19.0	0	0	3	2	3	1	0	1	0	91	87	94	6.8	6.8	8.1	3.1	3.3	3.5	60.3	61.3	60.4	C615	Cornelius
*Crows	445	SX	172	164	159	21.3	18.5	18.6	2	0	2	2	3	3	0	1	0	90	92	100	6.8	7.0	7.5	3.3	3.5	3.6	61.2	61.2	60.8	445	*Crows
Patriot	6134	SX			155	21.3			0			1			1			92			7.0			3.2			62.1			6134	Patriot
KSC/Challenger	9712	SX			151	21.3			0			2			1			86			7.1			3.2			61.4			9712	KSC/Challenger
Kruger	9513	SX	178	163	169	21.4	19.8	19.0	3	0	3	5	2	3	0	0	1	92	89	90	7.0	5.8	8.3	3.0	3.1	3.3	60.9	61.9	60.8	9513	Kruger
Dairyland	DST11305	SX			160	21.4			2			2			1			88			7.1			3.2			61.8			DST11305	Dairyland
KSC/Challenger	9711	SX			168	21.4			0			3			0			93			7.6			2.8			61.3			9711	KSC/Challenger
Hill Seed	EX712	SX			154	21.4			0			4			0			86			6.6			3.1			61.7			EX712	Hill Seed
Dairyland	ST1410	SX			177	21.4			5			2			1			95			6.6			3.0			61.3			ST1410	Dairyland
Epley	EX3242	SX			164	21.4			0			3			1			86			7.3			2.8			60.9			EX3242	Epley
Epley	EX3484	SX		159	159	21.5	21.1		0	0		3	1		0	0		89	88		6.6	7.1		3.1	3.5		62.4	61.2		EX3484	Epley
Ottilie	5050	SX			175	21.5			2			2			0			92			6.6			3.0			61.3			5050	Ottilie
Agrigold	A6433	SX			165	21.5			4			3			0			86			6.8			3.0			61.2			A6433	Agrigold
Pioneer	3335	SX		153	168	21.5	19.6		0	0		8	5		0	0		92	92		7.7	6.6		2.9	3.2		61.2	61.6		3335	Pioneer
Hawkeye Hybrid	SX44A	SX			171	21.5			2			3			1			91			6.7			3.2			61.0			SX44A	Hawkeye Hybrid
Rainbow	3109	SX	175	154	154	21.5	19.8	20.4	2	0	1	1	2	4	0	0	0	88	89	90	7.0	7.6	8.3	3.3	3.6	3.3	61.8	60.7	60.8	3109	Rainbow
ICI/Garst	8550	SX			153	21.5			1			2			0			82			6.9			3.2			61.5			8550	ICI/Garst
Hill Seed	HSX1105	SX		165	165	21.6	18.7		3	0		3	2		0	0		92	86		7.0	6.3		3.3	3.2		60.3	61.8		HSX1105	Hill Seed
Mark	MRK96110	SX			155	21.6			0			2			1			91			7.0			3.2			61.8			MRK96110	Mark
Mellow Dent/Coop	7675	SX			155	21.7			0			2			0			82			6.8			3.1			61.0			7675	Mellow Dent/Coop
Burrus	BX61	SX			164	21.7			1			2			0			91			6.5			3.0			61.3			BX61	Burrus
Agripro	AP9560	SX			170	21.7			3			1			0			92			6.9			3.2			60.8			AP9560	Agripro
Agrigold	XA4532	SX			160	21.8			1			3			1			87			7.0			3.3			61.7			XA4532	Agrigold
Patriot	5072	SX			166	21.8			0			4			0			91			7.3			2.9			60.9			5072	Patriot
LG Seeds	LG-2583	SX	178	166	170	21.8	18.9	18.8	1	0	2	3	2	3	1	0	0	93	89	93	6.8	6.9	8.3	3.3	3.3	3.3	60.9	61.0	60.6	LG-2583	LG Seeds
NC+	4646	SX			154	21.8			3			2			0			85			6.8			3.0			61.5			4646	NC+
Epley	EX3608	SX	162	169	166	21.8	19.3	19.1	6	0	2	2	3	2	0	1	0	92	89	95	6.9	6.4	8.2	3.2	3.3	3.3	60.7	61.5	60.5	EX3608	Epley
SOI	9137	SX			161	21.9			2			2			0			90			7.0			3.1			61.5			9137	SOI
Renze	6345	SX	166	166	164	21.9	18.9	18.8	2	0	1	2	8	4	0	1	0	93	89	91	6.6	7.2	8.0	3.0	3.2	3.3	61.0	61.2	60.8	6345	Renze
Dairyland	ST1412	SX		159	171	21.9	20.5		6	0		1	5		0	0		88	89		6.7	7.2		3.1	3.5		61.9	60.6		ST1412	Dairyland
Merschman	M5113	SX		164	161	22.0	19.5		5	0		2	4		0	0		87	89		6.8	6.7		3.0	3.4		61.1	60.8		M5113	Merschman
Sieben	7696	SX			159	22.0			2			3			0			81			6.7			3.1			61.8			7696	Sieben
Rainbow	3128	MSX			159	22.0			5			1			0			89			7.0			3.3			60.5			3128	Rainbow
Mycogen	2725	SX		162	169	22.0	20.0		4	0		5	3		0	0		87	83		6.7	7.4		3.0	3.4		61.6	60.8		2725	Mycogen
Terra	TR1091	SX	173	155	144	22.0	18.2	20.1	2	0	5	2	4	2	1	1	0	87	91	93	7.4	7.2	8.1	3.3	3.6	3.5	60.8	60.6	60.6	TR1091	Terra
Farmers Coop	FC1510	SX		154	154	22.0	20.0		0	0		2	3		1	0		90	89		6.9	7.4		3.1	3.3		62.2	61.4		FC1510	Farmers Coop
Sieben	7714	SX			144	22.1			3			1			0			79			7.6			3.3			60.9			7714	Sieben
Crows	494	SX	171	158	158	22.1	18.7	20.6	3	0	3	2	5	4	0	0	0	92	86	94	7.4	7.6	8.7	3.2	3.3	2.9	61.2	61.2	61.0	494	Crows
Great Lakes	5962	SX		149	155	22.1	19.8		1	0		4	4		0	0		86	86		7.4	7.7		3.0	3.2		61.8	61.5		5962	Great Lakes
SOI	9126	SX		164	166	22.2	20.4		3	0		3	2		0	0		87	86		7.1	7.0		3.3	3.3		61.1	61.3		9126	SOI
Golden Harvest	H2539	SX	170	152	156	22.3	19.3	19.8	0	0	0	2	2	3	0	0	0	87	86	85	6.9	7.4	8.1	3.3	3.4	3.1	61.5	61.2	61.1	H2539	Golden Harvest
Ames Best	AB1121	SX			152	22.3			3			3			1			88			6.9			3.0			60.8			AB1121	Ames Best
Moews	3785	SX			145	22.3			2			2			1			71			7.1			3.0			61.1			3785	Moews
Mellow Dent/Coop	7727	SX		175	168	22.3	19.7		5	0		4	2		0	0		82	87		6.7	6.9		3.2	3.3		61.4	61.4		7727	Mellow Dent/Coop
Terra	TR1126	SX			152	22.3			1			1			0			85			7.0			3.3			61.4			TR1126	Terra
Ottilie	2467	SX		162	169	22.3	20.3		2	0		4	3		1	1		91	84		6.8	7.1		3.3	3.4		61.5	61.4		2467	Ottilie
Renze	6366	SX			166	22.3			4			2			0			93			7.1			3.2			60.1			6366	Renze
Northrup King	N7070	SX		159	169	22.3	20.4		6	0		2	2		0	1		92	87		6.7	7.2		2.9	3.3		62.0	61.3		N7070	Northrup King
ICI/Garst	N4468	SX			164	22.3			4			3			1			86			6.5			3.1			61.7			N4468	ICI/Garst
Rainbow	3100	SX			161	22.4			1			3			0			92			6.9			3.3			61.4			3100	Rainbow
Callahan	C7557	SX		161	160	22.4	19.2		4	0		4	2		0	1		88	88		6.9	7.2		3.1	3.5		61.1	60.6		C7557	Callahan
Cargill	6997	SX		146	158	22.4	20.2		2	0		3	2		1	1		93	88		6.7	7.1		3.1	3.2		61.5	61.4		6997	Cargill
Agrigold	A6460	SX			164	22.4			5			1			0			89			7.1			3.1			61.0			A6460	Agrigold
Croplan Genetics	661	SX		165	168	22.4	20.7		2	0		3	3		0	0		86	88		6.7	6.6		3.4	3.3		61.1	61.7		661	Croplan Genetics
Agripro	AP9565	SX			170	22.4			2			2			0			93			6.9			3.3			61.4			AP9565	Agripro
Payco	846	SX			167	22.4			5			3			1			91			6.8			2.7			60.9			846	Payco
M/W Genetics	G7711	SX			166	22.4			4			4			0			91			6.7			3.2			61.8			G7711	M/W Genetics
KSC/Challenger	9714A	SX			150	22.5			5			5			0			90			6.8			3.1			60.8			9714A	KSC/Challenger
Cargill	7557	SX	187	157	158	22.5	20.0	21.3	16	0	5	8	3	3	0	0	1	89	84	96	6.8	7.2	8.2	3.1	3.4	3.4	61.9	61.1	61.2	7557	Cargill
Premium	P230	SX			161	22.5			3			2			0			80			6.8			3.0			61.8			P230	Premium
Cornelius	C685	SX			172	22.5			2			4			0			88			6.5			3.0			61.8			C685	Cornelius
Renze	6386	SX		171	172	22.5	19.9		3	0		4	2		0	1		94	89		6.6	6.7		3.1	3.3		61.5	61.3		6386	Renze
Kruger	9614	SX		165	165	22.6	20.4		6	0		2	2		0	0		92	90		7.1	6.9		3.2	3.4		60.4	60.9		9614	Kruger
Wyffels	W797	SX			151	22.6			6			2			1			76			6.8			3.2			60.7			W797	Wyffels
Farmers Coop	FC1610	SX			162	22.6			0			2			0			83			6.7			3.2			61.5			FC1610	Farmers Coop
Golden Harvest	H2547	SX		167	173	22.6	20.4		1	0		4	3		0	0		95	84		6.6	7.3		3.0	3.5		61.5	60.7		H2547	Golden Harvest
Trelay	9095	SX			172	22.7			2			3			0			93			6.5			3.2			61.9			9095	Trelay
NC+	4880	SX			174	22.7			4			4			0			89			6.5			3.0			61.9			4880	NC+
Northrup King	N6800	SX			160	22.7			14			1			0			89			7.4			3.4			60.9			N6800	Northrup King
Pfister	2680	SX			169	22.7			3			2			1			92			6.7			3.1			61.5			2680	Pfister
Hawkeye Hybrid	SX55	SX			166	22.7			2			2			1			91			6.7			3.0			61.6			SX55	Hawkeye Hybrid
Mark	MRK97112	SX			153	22.7			1			3			0			74			6.6			3.0			62.0			MRK97112	Mark
Merschman	M5110	SX		162	163	22.8	19.9		1	0		4	3		1	0		88	83		6.6	7.3		3.2	3.3		61.8	61.2		M5110	Merschman
Desoy	9815	SX			163	22.8			1			2			0			94			7.0			3.2			61.3			9815	Desoy
LG Seeds	LG-2624	SX			161	22.8			5			1			0			85			6.7			3.1			61.1			LG-2624	LG Seeds
Mark	MRK97116	SX			161	22.8			3			3			1			81			7.0			3.3			60.6			MRK97116	Mark
Desoy	9614A	SX		163	167	22.9	20.3		1	0		3	2		0	0		93	84		6.8	6.9		3.2	3.3		60.4	61.5		9614A	Desoy
Fontanelle	5306	SX			169	22.9			6			3			0			92			6.7			3.2			61.2			5306	Fontanelle
DeKalb	DK626	SX		162	168	22.9	19.1		4	0		2	3		0	0		93	86		7.2	7.1		3.6	3.5		60.2	60.8		DK626	DeKalb
Kaltenberg	K7701	SX			159	22.9			5			2			1			84			6.7			3.1			61.0			K7701	Kaltenberg
Merschman	M11260	SX			148	22.9			3			2			0			91			6.6			2.9			61.0			M11260	Merschman
Crows	496	SX		164	160	22.9	20.5		5	0		1	2		1	0		91	93		7.2	7.1		3.3	3.5		61.1	60.5		496	Crows
Renze	6397	SX			166	23.0			4			3			0			86			7.0			3.3			60.6			6397	Renze
Mellow Dent/Coop	7670	SX			146	23.1			1			3			0			90			7.5			3.4			61.1			7670	Mellow Dent/Coop
Cornelius	C776	SX			165	23.1			3			2			0			88			6.8			3.4			60.5			C776	Cornelius
KSC/Challenger	9716	SX			153	23.1			6			4			1			90			6.9			3.1			61.0			9716	KSC/Challenger
Bioseed	9511	SX			165	23.1			1			2			0			92			6.8			3.2			61.5			9511	Bioseed
FS	6890	SX			173	23.2			0			2			0			92			6.7			3.1			61.5			6890	FS
Epley	EX3708	SX			165	23.2			3			4			1			83			6.8			3.0			60.7			EX3708	Epley
Pfister	3034	SX		158	163	23.2	21.2		1	0		2	3		0	0		90	86		6.3	6.6		3.3	3.5		62.0	61.9		3034	Pfister
Cornelius	C642	SX	176	169	161	23.2	20.9	21.2	1	0	0	2	0	2	0	0	0	91	88	89	6.5	6.7	7.9	3.1	3.4	3.3	62.3	61.6	61.1	C642	Cornelius
Uthoff	U66	SX	173	161	158	23.3	21.3	20.5	1	0	6	3	3	2	0	0	0	87	88	90	6.4	6.4	7.6	3.2	3.5	3.5	62.2	61.5	61.0	U66	Uthoff
Kruger	9715	SX			164	23.3			4			2			0			94			7.1			3.2			60.5			9715	Kruger
Ottilie	2469IMI	SX			150	23.3			5			2			0			90			6.8			3.2			61.2			2469IMI	Ottilie
Great Lakes	591	SX		166	165	23.3	21.6		1	0		2	1		1	0		87	88		7.2	7.1		3.2	3.3		61.5	61.5		591	Great Lakes
Hill Seed	HSX1106	SX			152	23.3			1			3			1			87			7.4			3.2			61.3			HSX1106	Hill Seed
Mark	MRK95117	SX	192	150	158	23.4	20.2	23.5	9	0	11	2	4	1	1	2	0	87	88	96	7.1	7.3	8.4	3.2	3.3	3.2	61.1	61.2	60.8	MRK95117	Mark
Kline	KSX60A	SX	194	152	153	23.4	20.2	23.6	12	0	7	3	4	2	1	1	0	86	88	94	7.7	7.5	8.5	3.3	3.3	3.2	60.8	61.3	60.8	KSX60A	Kline
Callahan	C7762X	SX			154	23.4			4			1			0			78			6.7			3.0			60.9			C7762X	Callahan
NC+	4919	SX		164	166	23.4	20.7		2	0		2	2		0	0		91	88		6.8	7.1		3.2	3.3		61.2	61.2		4919	NC+
Agripro	AP9616	SX			158	23.4			6			3			1			84			6.9			2.9			61.1			AP9616	Agripro
Moews	3717	SX			143	23.5			10			3			0			93			7.8			3.3			61.3			3717	Moews
Mycogen	2759	SX			160	23.5			1			4			0			91			6.3			3.2			62.3			2759	Mycogen
*Mycogen	2757	SX			159	23.5			1			2			0			90			7.8			3.8			60.3			2757	*Mycogen
Fontanelle	5335	SX		171	167	23.5	19.2		4	0		2	2		0	0		92	89		6.6	6.9		3.2	3.5		61.0	60.8		5335	Fontanelle
Hill Seed	EX713	SX			153	23.5			2			0			0			81			7.2			3.2			60.4			EX713	Hill Seed
ICI/Garst	8342	SX			160	23.6			7			2			0			89			7.8			3.1			60.8			8342	ICI/Garst
Kruger	9415A	SX	177	162	163	23.6	21.1	21.7	1	0	1	2	2	3	1	1	0	87	88	90	6.3	7.1	7.8	3.2	3.5	3.4	62.0	61.2	61.1	9415A	Kruger
Rainbow	X1126	SX			163	23.6			0			3			0			93			6.5			3.1			61.8			X1126	Rainbow
M/W Genetics	G8511	SX			151	23.6			5			2			1			86			7.3			3.3			60.0			G8511	M/W Genetics
Cargill	7770	SX			174	23.6			5			2			1			91			7.0			3.3			61.0			7770	Cargill
Wyffels	W794	SX			153	23.6			11			3			0			83			7.6			3.1			60.8			W794	Wyffels
Great Lakes	6317	SX		154	167	23.7	21.4		3	0		2	1		0	0		88	83		7.2	7.1		3.1	3.4		60.7	61.1		6317	Great Lakes
Kruger	9716	SX			161	23.7			3			3			1			90			6.7			3.3			60.4			9716	Kruger
Pfister	3049	SX			158	23.7			2			2			1			89			6.9			3.2			60.8			3049	Pfister
Desoy	9315BPT	SX		149	152	23.7	22.1		3	0		4	5		0	0		90	90		7.8	8.0		3.7	3.9		60.7	60.1		9315BPT	Desoy
Sturdy Grow	680	SX			158	23.8			0			2			0			91			6.4			3.3			62.2			680	Sturdy Grow
Mellow Dent/Coop	7850	SX			156	23.8			3			7			0			90			7.4			3.3			60.8			7850	Mellow Dent/Coop
Mycogen	7250	SX		167	164	23.8	21.5		2	0		1	3		0	0		90	85		7.2	7.5		3.3	3.6		60.9	60.8		7250	Mycogen
Fontanelle	5325	SX		155	159	23.9	21.8		1	0		3	2		1	0		87	89		6.5	6.6		3.4	3.4		61.8	61.9		5325	Fontanelle
Premium	P234	SX			155	23.9			4			3			0			92			7.1			3.2			61.3			P234	Premium
Rainbow	3155	SX			145	24.0			9			5			0			84			7.8			3.0			60.9			3155	Rainbow
Golden Harvest	H2581	SX			166	24.0			5			1			0			92			7.2			3.1			61.1			H2581	Golden Harvest
Ottilie	2466	SX	179	162	164	24.0	21.2	22.1	1	0	2	3	3	2	0	0	0	92	85	96	6.5	6.7	7.8	3.2	3.5	3.3	61.9	61.0	61.2	2466	Ottilie
Crows	510	SX	175	157	149	24.1	18.9	22.1	2	0	0	2	2	2	0	1	0	89	92	94	7.5	7.3	8.1	3.3	3.5	3.3	60.8	60.9	60.9	510	Crows
Kline	KASI	SX			141	24.1			6			2			0			92			7.2			3.2			60.7			KASI	Kline
Hawkeye Hybrid	SX66	SX			156	24.1			7			4			0			89			6.7			3.2			60.6			SX66	Hawkeye Hybrid
Cargill	7777	SX	197	164	164	24.2	21.2	23.1	15	1	22	3	5	3	0	0	1	86	90	93	7.2	7.3	8.3	3.2	3.4	3.3	60.9	61.1	60.9	7777	Cargill
Mark	MRK96114	SX		167	167	24.2	21.9		5	0		3	3		0	1		89	87		6.6	7.0		3.3	3.4		61.2	61.0		MRK96114	Mark
FS	6796	SX			148	24.3			2			3			0			84			7.9			3.6			59.9			6796	FS
Patriot	6144B	SX			148	24.4			12			3			2			88			7.8			2.9			61.3			6144B	Patriot
ICI/Garst	8400	SX	173	152	158	24.4	20.7	21.2	3	0	2	1	3	4	2	1	1	89	86	92	7.2	7.5	7.9	3.2	3.6	3.5	61.1	60.8	60.9	8400	ICI/Garst
Renze	6416	SX		174	168	24.6	22.2		6	0		2	2		1	1		92	92		6.5	6.9		3.3	3.4		61.3	61.2		6416	Renze
Agripro	AP619	SX		167	160	24.7	21.3		1	0		1	0		0	0		90	85		7.3	6.9		3.1	3.3		60.6	61.3		AP619	Agripro
Agrigold	A6590	SX			150	24.8			5			2			0			75			6.6			3.1			60.5			A6590	Agrigold
Moews	3892	SX	194	154	152	24.8	19.7	24.3	12	0	11	2	3	2	1	1	1	91	90	98	7.8	7.0	8.3	3.2	3.2	3.2	60.5	61.6	61.1	3892	Moews
Kruger	9616B	SX		180	167	24.8	21.5		5	0		2	3		0	0		90	92		6.6	6.8		3.3	3.2		61.0	61.7		9616B	Kruger
Bioseed	9550	SX	177	158	151	24.9	20.9	22.0	3	0	7	3	4	4	1	1	1	84	91	95	7.4	7.3	8.0	3.1	3.4	3.3	60.9	61.0	60.8	9550	Bioseed
Payco	902	SX		153	144	25.0	21.0		2	0		4	8		1	0		87	93		7.3	7.0		3.0	3.4		60.9	61.2		902	Payco
NC+	5445	SX		156	158	25.0	21.2		4	0		0	3		0	0		92	87		7.3	7.0		3.1	3.5		60.3	60.8		5445	NC+
KSC/Challenger	9713LTH	SX			142	25.0			1			4			0			94			7.5			3.3			61.3			9713LTH	KSC/Challenger
Su Cros Co	4413	SX			148	25.0			11			2			1			91			7.7			3.1			61.3			4413	Su Cros Co
Ames Best	AB1162	SX		173	157	25.2	22.4		2	2		2	2		0	1		89	91		6.7	7.0		3.2	3.3		61.2	61.3		AB1162	Ames Best
Bioseed	9540	SX			154	25.2			11			2			0			89			7.3			3.4			60.8			9540	Bioseed
Cargill	7997	SX	194	160	161	25.2	22.0	24.3	3	0	5	3	3	2	0	0	0	89	89	98	6.5	7.0	7.9	3.3	3.5	3.5	61.7	61.3	61.0	7997	Cargill
Mellow Dent/Coop	7805	SX			162	25.3			4			2			0			92			6.6			3.3			61.0			7805	Mellow Dent/Coop
Fontanelle	5624	SX			166	25.7			3			3			0			88			7.9			3.3			60.2			5624	Fontanelle
Ottilie	2482X	SX		169	155	25.8	22.5		1	0		1	2		0	0		92	89		7.7	7.8		3.1	3.5		60.7	60.4		2482X	Ottilie
Wilson	E5392	SX			150	27.7			5			2			1			86			7.5			3.3			60.3			E5392	Wilson
Wilson	E5379	SX			139	28.4			2			1			0			90			7.4			3.3			60.6			E5379	Wilson
Average of All Entries			176.2	159.2	159.6	22.1	19.5	19.9	3.0	0.1	3.2	2.8	2.7	2.7	0.4	0.3	0.3	88.4	87.7	93.7	7.0	7.1	8.1	3.2	3.4	3.3	61.2	61.1	60.9	Average of All Entries	
Average of Check Hybrids			175.8	153.0	159.4	20.7	18.0	18.7	1.6	0.0	2.2	2.7	2.4	3.3	0.3	0.4	0.2	89.4	88.1	95.4	7.1	7.0	8.1	3.3	3.3	3.4	61.0	61.2	60.8	Average of Check Hybrids	

* = Check Hybrid Entered by Iowa State University. SX = Single Cross. MSX = Modified Single Cross. 3X = 3-Way Cross. 4X = 4-Way Cross. SXB = Blend of Single Crosses.

District 5

Designations Identifying Brands in the Yield Test

Agrigold .... Akin Seed Co., St. Francisville, IL 62460
Agripro .... Agripro Seeds, Inc., Ames, IA 50010
Ames Best .... Ames Best Hybrids, Ames, IA 50010
*Asgrow .... Asgrow Seed Company, Kalamazoo, MI 49002
Bioseed .... Bioseed Genetics USA, Inc., Ankeny, IA 50021
Burrus .... Burrus Bros. & Assoc. Growers, Arenzville, IL 62611
Callahan .... Callahan Seeds, Westfield, IN 46074
*Cargill .... Cargill Hybrid Seeds, Minneapolis, MN 55440
Croplan Genetics .... Cenex/Land O'Lakes Seed, St. Paul, MN 55164
Cornelius .... Cornelius Seed Corn Co., Bellevue, IA 52031
*Crows .... Crow's Hybrid Corn Co., Milford, IL 60953
Dairyland .... Dairyland Seed Co., Inc., West Bend, WI 53095
*DeKalb .... DeKalb Genetics Corp., DeKalb, IL 60115
Desoy .... Dennis Ewing Farm Seed, Ames, IA 50010
Epley .... Epley Bros. Hybrids, Inc., Shell Rock, IA 50670
Farmers Coop .... Farmers Cooperative Co., Bayard, IA 50029
Federal .... Federal Hybrids, Marion, IA 52302
Fontanelle .... Fontanelle Hybrids, Nickerson, NE 68044
FS .... Growmark, Inc., Bloomington, IL 61701
Golden Harvest .... The J.C. Robinson Seed Co., Waterloo, NE 68069
*Golden Harvest .... Golden Seed Co., Inc., Cordova, IL 61242
Great Lakes .... Great Lakes Hybrids, Inc., Boone, IA 50036
Hawkeye Hybrid .... Hawkeye Hybrids, Inc., Pella, IA 50219
Hill Seed .... Hill Seed Co., Ellsworth, IA 50075
ICI/Garst .... ICI/Garst Seed Company, Slater, IA 50244
Iowa State .... Iowa State Hybrid Corn Co., Elkhart, IA 50073
Kaltenberg .... Kaltenberg Seed Farms, Inc., Waunakee, WI 53597
Kline .... Kline Hybrids, Vinton, IA 52349
Kruger .... Kruger Seed Company, Dike, IA 50624
KSC/Challenger .... Challenger Seed Co., Dike, IA 50624
LG Seeds .... LG Seeds Mt. Pleasant Ser. Ctr., Mt. Pleasant, IA 52641
Mark .... Mark Seed Co., Perry, IA 50220
Mellow Dent/Coop .... Professional Seed Assoc., Inc., Alta, IA 51002
Merschman .... Merschman Seeds, West Point, IA 52656
Middlekoop .... Middlekoop Seed Corn, Inc., Packwood, IA 52580
Moews .... Moews Seed Co., Bagley, IA 50026
M/W Genetics .... Midwest Seed Genetics, Carroll, IA 51401
*Mycogen .... Mycogen Seeds, Prescott, WI 54021
NC+ .... NC+ Hybrids, Lincoln, NE 68504
Northrup King .... Northrup King Co., Ames, IA 50010
Ottilie .... Ottilie RO Seed, Marshalltown, IA 50158
Patriot .... Patriot Seed Company, Inc., Bowen, IL 62316
Payco .... L.L. Olds Seed Company, Madison, WI 53707
Pfister .... Pfister Hybrid Corn Co., El Paso, IL 61738
*Pioneer .... Pioneer Hi-Bred Int., Inc., Ankeny, IA 50021
Premium .... Premium Seed, Inc., Berwick, IL 61417
Rainbow .... Rainbow Seeds, Oskaloosa, IA 52577
Renze .... Renze Hybrids, Inc., Carroll, IA 51401
Sieben .... Sieben Hybrids, Inc., Geneseo, IL 61254
SOI .... Sand Seed Service, Inc., Marcus, IA 51035
Sturdy Grow .... Sturdy Grow Hybrids, Inc., Arcola, IL 61910
Su Cros Co .... SuCrosCo Seed, Manilla, IA 51454
Terra .... Terra International, Inc., Sioux City, IA 51102
Trelay .... Trelay Seeds, Livingston, WI 53554
Uthoff .... Uthoff Hybrids, Cedar Rapids, IA 52404
Wilson .... Wilson Seeds, Inc., Harlan, IA 51537
Wyffels .... Wyffels Hybrids, Atkinson, IL 61235

*Companies with one or more check hybrids entered by Iowa State University.

The 1996 Iowa Corn Yield Test Computer Diskette Order Form

Iowa Corn Yield Test results are published each year to help farmers select corn hybrids. Since 1987 a computer version has been available that includes the information in the written reports and a program to calculate an economic return value for each hybrid based on farmer supplied expected corn price, final moisture, and drying and shrink costs. These inputs can easily be changed and the computer will calculate new economic return values for all hybrids. These values provide information on whether full season hybrids produce enough extra yield to compensate for drying costs. The computer program also can sort the hybrids by yield, moisture, adjusted economic value, root lodging, stalk lodging, dropped ears, protein, oil, starch, or brand.

For more information, call Extension Software Service at 515-294-8658. Or, if you want to order the program, please complete, cut out, and return the order form in this report.

Grain moistures shown in Tables 1 and 2 are indications of maturity and natural drying rate. Maturity of varieties entered generally ranged from short to full season. Yield comparisons should be made among varieties of similar maturity.

It is important to select varieties having stable performance over a range of environmental conditions. High yields for two or more consecutive years indicate stable performance. Supplemental yield and agronomic information about specific varieties may be obtained from seed corn dealers, crop consultants, and from neighbors who have grown these varieties.

The protein, oil, and starch percentage data (Tables 1 and 2) are quality traits important to different end-users of corn. For feed, protein is of primary interest; for wet-mill processing (ethanol and sweeteners), oil and starch content are important. Several firms have begun testing these characteristics on an exploratory basis. In 1995, a network of 15 Iowa grain elevators acquired near-infrared equipment and are testing inbound corn at their facilities.

Whole-grain near-infrared equipment measures composition of unground corn kernels in 1 to 1.5 minutes per sample. The equipment measures moisture simultaneously with composition. Using these instruments, country elevators can test and segregate grain as it is received. Obviously, all compositional factors cannot be high in the same hybrid. The grain market is exploring segmentation (identity preservation) which is the production and marketing of certain hybrids for specific uses. This is an important change from the generic commodity approach now used.

The economic impact of compositional factors can be significant. Corn protein trades off with other protein sources in many feed rations. At $200 per ton for 44 percent protein soybean meal, the value of a 1 percent increase (e.g. from 8 percent to 9 percent) in corn protein is about 12 cents per bushel of corn. Likewise, an additional percent of oil yields about 14 cents per bushel in increased oil output in a wet processing plant or when substituted for white grease in feed rations. The additional ethanol or sweetener from an extra percent of starch provides 8 to 10 cents per bushel more revenue. Producers feeding livestock are in the best position to capture immediate benefits from these composition data. Country elevators with feed mills also have the ability to capitalize on increased protein in corn. The Iowa Corn Growers Association has prepared a publication to aid growers in using the nutrient data in the Iowa Corn Yield Test Reports: *Nutrient Content and Feeding Value of Iowa Corn*, Iowa Corn Growers Association, Des Moines, Iowa 50265.

Hybrids with similar yields and agronomic characteristics may not be identical in corn protein. Therefore, feed costs can be reduced by selecting higher protein hybrids from a group with similar yield potential. Weather and soil conditions affect composition, but the relative ranking of hybrids does not change greatly. A higher protein hybrid will be higher than average regardless of environmental conditions that raise or lower the averages. The protein percentages reported are measures of crude protein and may not give an accurate indication of feed value if feed rations are balanced on individual amino acids rather than crude protein content.

1996 Field Data

The District 5 test was planted on farms operated by the Heineman brothers near Ogden in Boone County, Edward Heishman near Grinnell in Poweshiek County, and Dave Elijah near Clarence in Cedar County. Field data are presented in Table A.

At planting time, subsoil moisture for the district was short. Rainfall for the district was below normal in April and September and near normal in June. For the other three months, rainfall was variable in the district. In May, rainfall at the Boone County location was above normal while at the other two locations it was way above normal. In July, rainfall at the Cedar County location was well below normal while at the other two locations it was near normal. In August, rainfall at the Boone County location was near normal while at the other two locations it was well below normal. Temperatures for the district were way below normal in April, May, and July, near normal in June, below normal in August, and well below normal in September. The average district yield was 10 bushels per acre above the mean of the five preceding years' averages. Average location yields are listed in Table A.

Table A. Field Data

	Heineman Farm* Nicollet loam			Heishman Farm Tama silty clay loam			Elijah Farm Tama silty clay loam		
Fertilizer applied, lb.	N	P_2O_5	K_2O	N	P_2O_5	K_2O	N	P_2O_5	K_2O
Plowdown	148.6	90	110	23	60	80	—	40	75
Preplant	—	—	—	150	—	—	140	—	—
Total	148.6	90	110	173	60	80	140	40	75
1995 crop	Soybeans			Soybeans			Soybeans		
Row width	30 inches			30 inches			30 inches		
Planting date	April 26 & 27			April 24			May 6		
Harvest date	Oct. 21, 22 & 24			Oct. 28 & 30			Nov. 7 & 8		
Average yield	160 bu/a			165 bu/a			154 bu/a		

*Field sampled for protein, oil, and starch percentage data

Other Reports

Separate reports for variety performance are available for each district shown in Figure 1. A limited supply of these publications is available at your county extension office or from Extension Distribution Center, Printing and Publications Building, Iowa State University, Ames, Iowa 50011. Also, an IBM compatible diskette containing these data along with a hybrid selection program is available from Extension Software Services, 110 EES Bldg., Haber Road, Iowa State University, Ames, Iowa 50011-3070. Along with all of the information as it appears in the written reports, the computer diskettes include computer programs that allow farmers to insert their own drying and shrink costs, expected price of corn, and final moisture percentage after drying. Using these specific criteria, the program calculates an adjusted economic value for each hybrid in the test. Farmers can then determine which hybrids might best fit their own production practices and provide the most profit. The computer program also can sort the hybrids by yield, moisture, adjusted value, root lodging, stalk lodging, dropped ears, protein, oil, starch, or brand and then print the data as sorted. An IBM personal or compatible computer supporting MS-DOS 2.0 or higher, with at least 512K memory is required. The cost of this diskette is $25. All seven districts can be purchased for $150. Order forms, Pm-660-OF-96, are available from county extension offices and included in the printed reports.

The 1996 Iowa Corn Yield Test Report:
Pm-660-1-96 District 1
Pm-660-2-96 District 2
Pm-660-3-96 District 3
Pm-660-4-96 District 4
Pm-660-5-96 District 5
Pm-660-6-96 District 6
Pm-660-7-96 District 7

Order Form: Iowa Corn Yield Test Hybrid Selection Program

Please send me computer diskettes of the following districts of the Iowa Corn Yield Test Results.

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District 5 ☐ District 6 ☐ District 7 ☐ Set of 7 districts ☐

Each district at $25/copy_____

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Total amount_____

IBM/compatible
Disk size 3.5" only

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Do you have access to EXNET and/or the Internet? yes ☐ no ☐

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Iowa State University
110 EES Building
Haber Road
Ames, Iowa 50011-3070
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File: Agronomy 2-2

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